Updated ICT Assessment Description and Methodology

As part of its emerging Digital Development strategy, USAID aims to establish a standardized methodology for assessing the market for and use of ICT in countries where it aims to work. The goal is to allow a local USAID presence to create an ICT development program that is effective at stimulating economic growth.

This methodology is based on a number of different building blocks. First, USAID has in recent years made extensive use of a "snapshot" style ICT assessment to give Mission Directors a top-level view of the ICT sector in their country. Secondly, it adds an element of analysis that is based on the "growth diagnostics" (or "constraints analysis") methodology that has been recently adopted by USAID as part of the "Partnership for Growth" initiative. Thirdly, it builds on the sector assessment work done by Integra LLC for the GBI initiative in Kenya, which includes significant "gap analysis" where data is available.

The specific elements taken from each of the three building blocks are as follows:

- **ICT Assessment:** This updated methodology includes all of the basic information contained in previous USAID ICT assessments. This includes information on the reach of private telecoms operators, the enabling environment in the country, and use of ICT by NGOs, businesses, and donors. It will present a detailed portrait of the penetration and diffusion of Internet and broadband in the country.

- **Growth Diagnostics**: The methodology adds a further element of analysis to the ICT assessment by asking why observed market outcomes exist the way they do. These questions could include "why are mobile data prices high?" The answer could due with a number of causes: lack of competition, poor demand, limited data capacity, etc. The methodology will evaluate these potential explanations to determine which is the most important.

To further clarify what a "growth diagnostics" perspective adds to ICT Assessments, consider this paragraph from a study of the ICT sector in Albania.

"It is clear that in the past lack of competition among mobile operators was a major constraint to ICT expansion. Earlier we noted the 50% fall in retail mobile prices between 2008-09, which coincided with the entrance of the new operator Eagle into the market. We also noted, however, that even after the 50% decline prices remain high relative to neighboring countries (Albania remained the most expensive mobile phone market in the Balkans).

The fact that prices responded to increased competition, but that one new entrant alone did not cause enough of a disruption to bring the market in line with international price standards, suggests one of two things. Either there is a) some sort of wholesale connectivity supply constraint that is now rendering the market incapable of meeting demand, keeping prices high, or b) there remains a continuing problem with oligopolistic behavior by firms that the entrance of one new provider alone could not overcome. At first, a supply constraint seems likely, given that we previously noted that national backbone capacity is very limited. However, we were able to estimate carrier costs and report that profit margins for mobile carriers are in the 50-100% range. Given retail prices, this indicates that wholesale costs are actually in line with other countries.

This suggests that despite the fact that Albania's wholesale connectivity is limited by international standards, it is not constraining access and driving up prices. Rather, further competition is likely needed."

- **Gap Analysis:** where possible, ICT assessments will gather GIS information about the geographic distribution of voice, 3G, and 4G coverage and use it for inference. For example, in Kenya we were able to show how many non-users of ICT lived in areas where coverage was available. This suggested issues associated with pricing, skills, or a lack of understanding of the value of ICT.

Given that ICT assessments will now incorporate both an overall snapshot and two new components of analysis, they will be structured as follows.

Revised Structure of ICT Assessments

Part I – Pose the question to be investigated. "The report will determine the extent of two things - connectivity and value-added ICT services – and will then diagnose the constraints to expanded connectivity and ICT services. It will be up to the mission to determine the best course of action to relax these constraints, given available resource and political considerations, but we will provide a limited set of possible solutions, and

provide a contextualized explanation of what is likely to happen in a country if these are implemented."

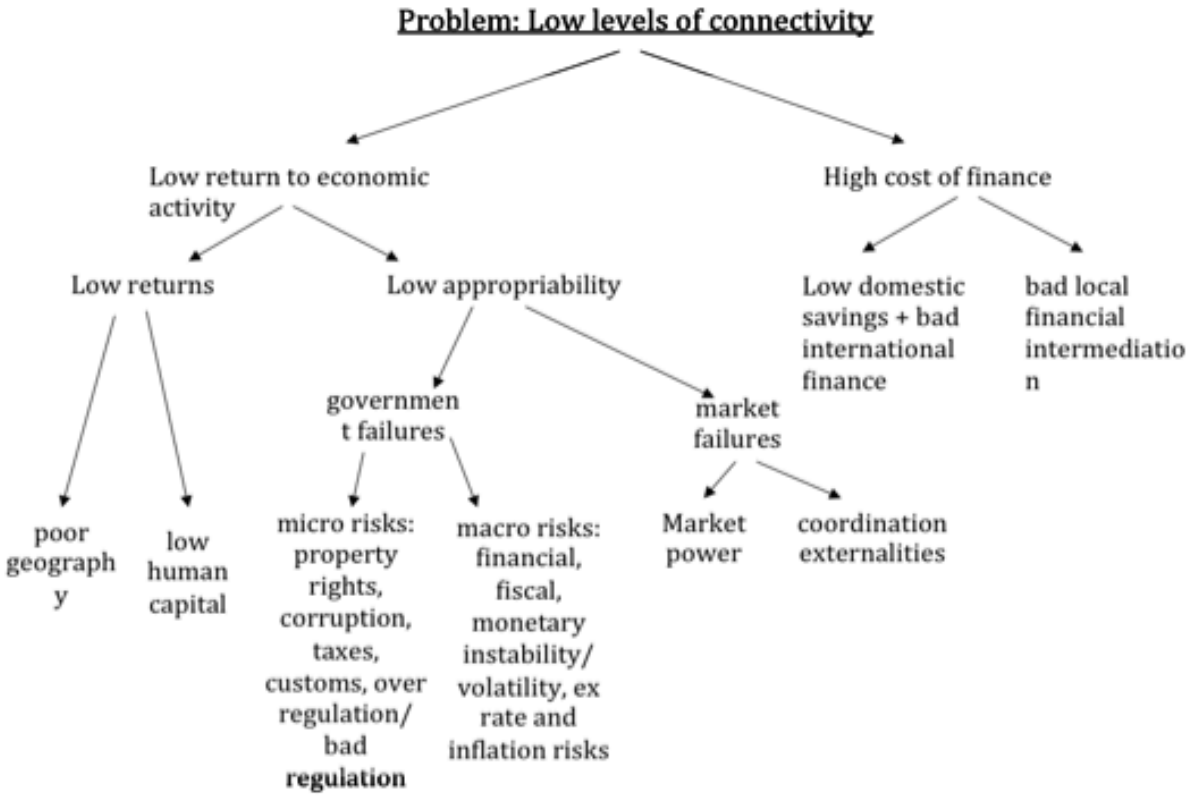
Part II – Explain the methodology. "We collect lots of data and take a snapshot of the current state. Then we apply rigorous economic analysis based on the "growth diagnostics" methodology of Hausman, Rodrik and Velasco (HRV) to determine how the equilibrium outcome observed in the country is maintained."

Part III – Connectivity snapshot. Start with the numbers (mobile penetration, cost of a call, etc), but also include spatial distribution. This will present all the information upon which our connectivity analysis is based. It will include information on infrastructure, market structure, and aggregate demand for telecommunications (including a discussion of government programs to stimulate demand for ICTs).

Part IV – Analysis of the connectivity situation presented in part III. This will consist of an evaluation of all the possible constraints to telecoms expansion using the type of economic analysis discussed above. Constraints to be examined will include:

-Market power/structure/strategic competition
-Low demand / willingness to pay
-Poor business climate – over regulation, taxation, etc
-Lack of regulatory / governance capacity
-Lack of complementary infrastructure
-Interest rates/access to capital
-Poor macro situation (inflation/exch. risk prevents investment)

For part IV we will use the following decision tree, based on the Growth Diagnostics work of HRV.



Part V – Provide a snapshot of value-added ICT services in the country. We have the ability to tailor this to a certain sector (Ag, Environment) depending on the wishes of the Mission, but do not have to. This section will ask questions such as "How is the government using ICTs," or "How is the private sector using them?" It will also explore the state of the local ICT industry.

Part VI – will evaluate the constraints to the expansion of value-added ICT services in the same manner in which we evaluated the constraints to connectivity expansion in part IV.

Part VII – recommendations on how USAID could attack the constraints identified in previous sections of the report. This is the "menu of policy options" we present to the Mission. Because of the analysis conducted as part of the assessment, the policy menu implicitly takes a stand on what the most important problems in the country are. In Part VII we can also discuss political issues with each recommendation, and also address how the mission may make use of ICT in its programming.

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The process of conducting this new type of ICT Assessment will be no more involved than previous ICT assessments. It will involve similar levels of personnel, time and money, and provide a product that offers missions a more refined set of policy options.

Personnel Involved – there will be two full time consultants devoted to the ICT Assessment. The first will be an economist with experience in the methodology – someone that knows how to ask the relevant questions, postulate scenarios and test them. The second will be an ICT specialist. This person will provide the team with a solid understanding of the technical issues involved in ICT and contribute to the analysis of ICT issues in the country. A third team member is possible, but this person is likely to only be needed on a part time basis. This team member will be someone with expertise in the country, its government and regulatory environment, and its local economy. This team member will ideally be a senior development economist, and their role will be as advisor and sounding board. The two full time team members will do the investigation and, based on their findings hypothesize possible explanations for the problems the country faces. They will be able to then take these postulations to the third member, the country expert, to check if they fit with what is known about the country in general. The third team member will then be able to offer suggestions about other things to look into, and help refine the "binding constraints" approach as an iterative process.

It would be ideal if this third team member were a direct-hire USAID employee stationed at the relevant Mission. His time commitment would be minimal, perhaps not more than an hour a day for the time that the core assessment team is on the ground in-country.

A second USAID direct-hire should be staffed to the ICT assessment while the core team is on the ground. This junior person would be in charge of arranging meetings for the assessment team, ensuring they have access to transportation, as well as access to office space, connectivity, and meeting rooms.

Time Frame- The ICT Assessment will begin with a period of desk-based research in the United States. The two primary consultants should be co-located in the same office for this period. They will start by collecting data on telecoms/broadband reach, access and pricing, the structure of the domestic market, the history of the ICT sector in the country and other relevant facts. This information will all be distilled and a series of hypothesis as to the binding constraint should be formed. The team must then identify unanswered questions that they can take with them to the country and key personnel to be interviewed once there. This assessment period should take approximately two weeks.

A period of on the ground assessment should then follow. While the interviews identified in the previous phase can likely be conducted in one week, it is best to leave two weeks in the likely event that the hypothesis changes while the team is on the

ground and new, previously unscheduled research, must be done while the team is there. A two week period should allow enough time for the assessment to undergo an iteration that encompasses the first round of on the ground interviews, and provide enough time for the team to make enough contacts to finish the report from the United States.

The team should conduct an out-briefing on findings before returning to the US. Once back they will finalize the report based on feedback received from people on the ground that heard the findings. A final report should be issued to the mission within one month of the consulting team's return.